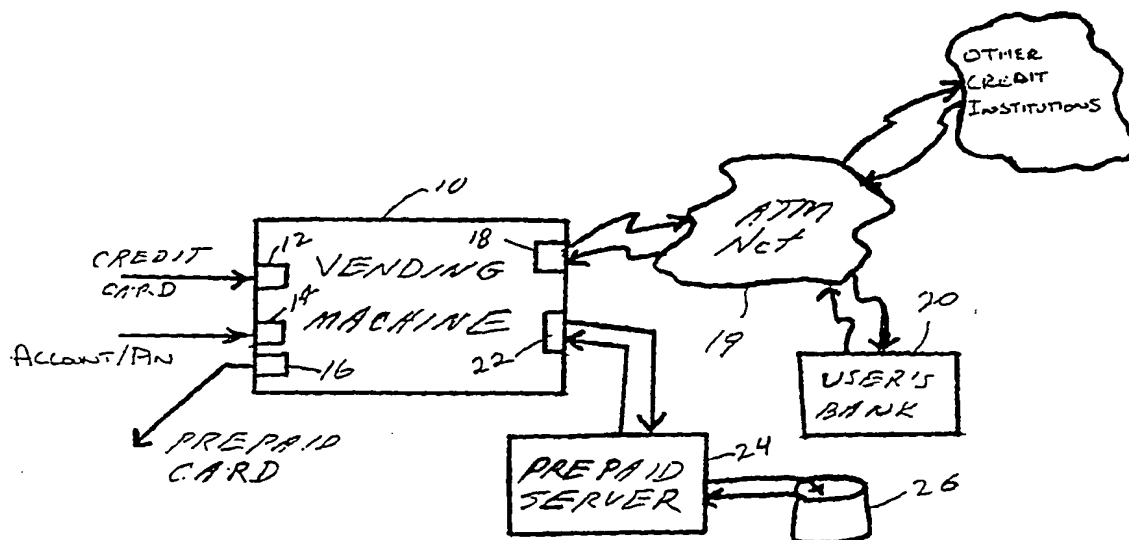




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/US98/17429 (22) International Filing Date: 25 August 1998 (25.08.98) (71) Applicant: HARRIS CORPORATION [US/US]; 1025 West Nasa Boulevard, Melbourne, FL 32919 (US). (72) Inventor: BAILIS, Jason; 40 Bridle Path Lane, Novato, CA 94945 (US). (74) Agents: ROGERS, L., Lawton, III, et al.; Rogers & Killeen, Suite 400, 510 King Street, Alexandria, VA 22314 (US).			(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> With international search report.

(54) Title: PREPAID CARD VENDING MACHINE AND METHOD



## (57) Abstract

A vending machine located in any suitable place and may be provided with a conventional credit card reader (12), a conventional manual keyboard (14) and a conventional prepaid card dispenser (16). The vending machine is provided with a conventional interface (18) for operably connecting the vending machine to a credit network such as that of a credit card or automatic teller machine network (19).

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PREPAID CARD VENDING MACHINE AND METHODBACKGROUND OF THE INVENTION

Prepaid telephone systems are well known. In such systems, a user is conventionally provided with a plastic card with a code which identifies the amount of credit carried by the PrePaid Card and a personal identification number ("PIN") for that PrePaid Card. This card (a "PrePaid Card") may then be used from any telephone, generally a toll free call, to access a server in the prepaid telephone switching system. The association by the server in its data base of the credit on the card at the time of sale with that account/PIN is known as the "activation" of the PrePaid Card. Once the account in the prepaid telephone data base has been activated, the subscriber may simply dial the prepaid telephone system and, in response to a tone or voice prompt, dial his PIN to receive access to the telephone network. The server which controls the operation of the telephone switching system causes the telephone switching network to service the call to the extent that the subscriber has credit associated with his PIN in the data base to which the server is connected.

Vending machines have been used to dispense PrePaid Cards, i.e., a subscriber may by the insertion of one or more bills into a conventional bill reader of the vending machine cause a PrePaid Card to be "charged" with the amount of cash inserted into the vending machine. With known machines, either the PrePaid Card must be activated by a proprietary method of the particular vending machine or the machine must

store pre-activated cards, tying up inventory capacity and posing a theft risk.

Accordingly, it is an object of the present invention to provide a novel vending system and method which obviates many of the disadvantages of known PrePaid Card dispensing systems.

It is another object of the present invention to provide a novel vending system and method which permits the use of credit from other sources to effect charging of the PrePaid Card.

It is yet another object of the present invention to provide a novel vending system and method which permits the recharging of a subscriber's existing account.

It is still another object of the present invention to provide a novel vending system and method which allows a subscriber's existing checking account and ATM pin to be used by a PrePaid telephone system and subtract the cost of the call directly from the subscriber's bank account.

These and many other objects and advantages of the present invention will be readily apparent to one skilled in the art to which the invention pertains from a perusal of the claims, the appended drawings, and the following detailed description of the preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a functional block diagram of one embodiment of the PrePaid Card vending system of the present invention.

Figure 2 is a functional block diagram illustrating a second embodiment of the PrePaid Card vending system of the present invention.

DESCRIPTION OF PREFERRED EMBODIMENTS

As shown in Figure 1, a vending machine 10 may be located in any suitable place and may be provided with a conventional credit card reader 12, a conventional manual keyboard 14 and a conventional PrePaid Card dispenser 16.

The vending machine 10 may also be provided with a conventional interface 18 for operably connecting the vending machine to a credit network such as that of a credit card or automatic teller machine ("ATM") network 19, in turn operably connected in a conventional manner to the user's banking institution 20.

The vending machine 10 may also be connected through any conventional interface 22 such as telephone lines or the Internet to the server 24 and associated data base 26 associated with the telephone switching network (not shown).

In operation, the user may insert his credit card into the credit card reader 12 of the vending machine 10. It is to be understood that the credit card may be a bank card or the card of an ATM. Once the credit card has been read, the user enters his credit card account and PIN or ATM PIN into the keyboard 14 to thereby access the data base associated with

the user's bank 20. The user may then enter through the keyboard 14 the amount of credit he desires to be transferred to the PrePaid Card being purchased, and the transfer of funds, once approved by the user's bank 20, is applied to a PrePaid Card and the PrePaid Card dispensed for activation in the usual manner.

Alternatively, the user may use the keyboard to enter the account/PIN of his PrePaid Card and instruct the vending machine to credit his account in the data base 26 of the prepaid telephone system. In this way, the user may credit the account associated with an existing prepaid telephone account/PIN without having to receive a new PrePaid Card and go through the activation process for that PrePaid Card.

Further, as shown in Figure 2, the prepaid server 24 need not be connected directly to the vending machine 10, but may alternatively be connected to the vending machine 10 via the ATM network 19.

While preferred embodiments of the present invention have been described, it is to be understood that the embodiments described are illustrative only and the scope of the invention is to be defined solely by the appended claims when accorded a full range of equivalence, many variations and modifications naturally occurring to those of skill in the art from a perusal hereof.

WHAT IS CLAIMED IS:

1. A vending machine for prepaid telephone cards comprising:

a housing;

means contained within said housing but accessible from the exterior thereof for receiving credit card information;

means contained within said housing but accessible from the exterior thereof for receiving a personal identification number associated with a credit card;

means contained within said housing for storing and for dispensing an inactivated prepaid telephone credit card;

means contained within said housing for communicating credit card information and a personal identification number to a remote source of credit and for receiving credit information from a remote source of credit; and

means contained within said housing for communicating credit information received from a remote source of credit to the remote server of a prepaid telephone network.

2. The vending machine of Claim 1 wherein said means for receiving credit card information is a magnetic strip reader.

3. The vending machine of Claim 1 wherein said means for receiving a personal identification number includes a manually operable keyboard.

4. The vending machine of Claim 1 wherein said means for communicating with a remote server includes a computer server and an Internet browser.

5. The vending machine of Claim 1 wherein said means for communicating with a remote server includes a telephone modem.

6. A vending machine for prepaid telephone cards comprising:

a housing;

means contained within said housing but accessible from the exterior thereof for receiving credit card information;

means contained within said housing but accessible from the exterior thereof for receiving a personal identification number;

means contained within said housing for communicating credit card information to a remote source of credit and for receiving credit information in response to the communication; and

means contained within said housing for communicating credit information received from a remote source of credit to the data base of a remote server in a prepaid telephone network.

7. The vending machine of Claim 6 wherein said means for receiving credit card information is a magnetic strip reader.

8. The vending machine of Claim 6 wherein said means for receiving a personal identification number includes a manually operated keyboard.

9. The vending machine of Claim 6 wherein said means for communicating with a remote server includes a computer server and an Internet browser.



10. The vending machine of Claim 6 wherein said means for communicating with a remote server includes a telephone modem.

11. A method of recharging a prepaid telephone card from a vending machine comprising the steps of:

(a) supplying credit card information to the vending machine;

(b) supplying a personal identification number associated with the credit card information to the vending machine;

(c) communicating the credit card information and personal identification number from the vending machine to a remote source of credit;

(d) receiving credit information from the remote source of credit at the vending machine;

(e) supplying a personal identification number associated with a prepaid telephone network to the vending machine; and

(f) communicating credit information and the personal identification number associated with the prepaid telephone network from the vending machine to the server associated with a prepaid telephone network.

12. A method of vending a prepaid telephone card from a vending machine comprising the steps of:

(a) supplying credit card information to the vending machine;

(b) supplying a personal identification number associated with the credit card information to the vending machine;

(c) communicating the credit card information and personal identification number from the vending machine to a remote source of credit;

(d) receiving credit information from the remote source of credit at the vending machine; and

(e) dispensing an inactivated prepaid telephone card in response to receipt of the credit information.

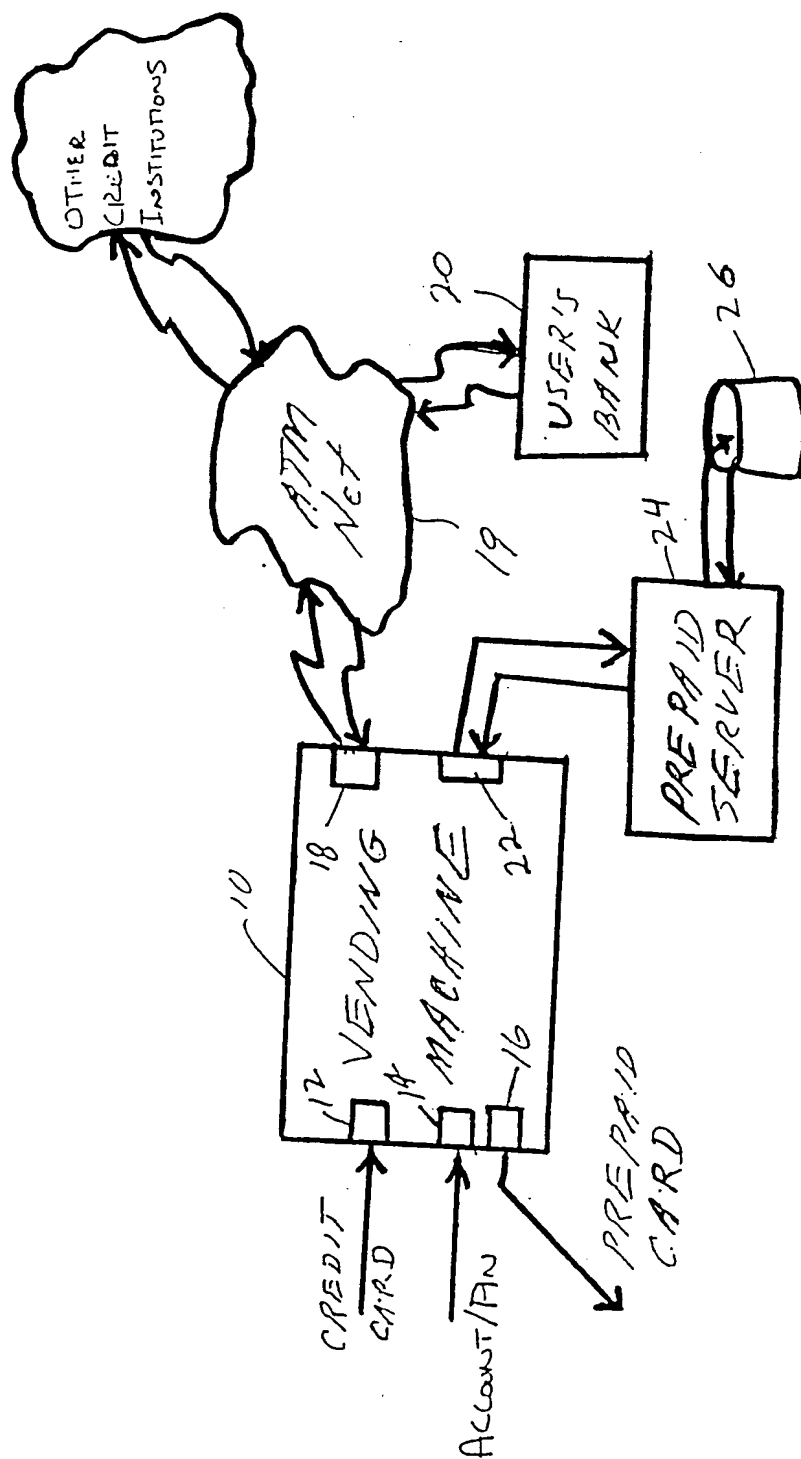


FIG. 1

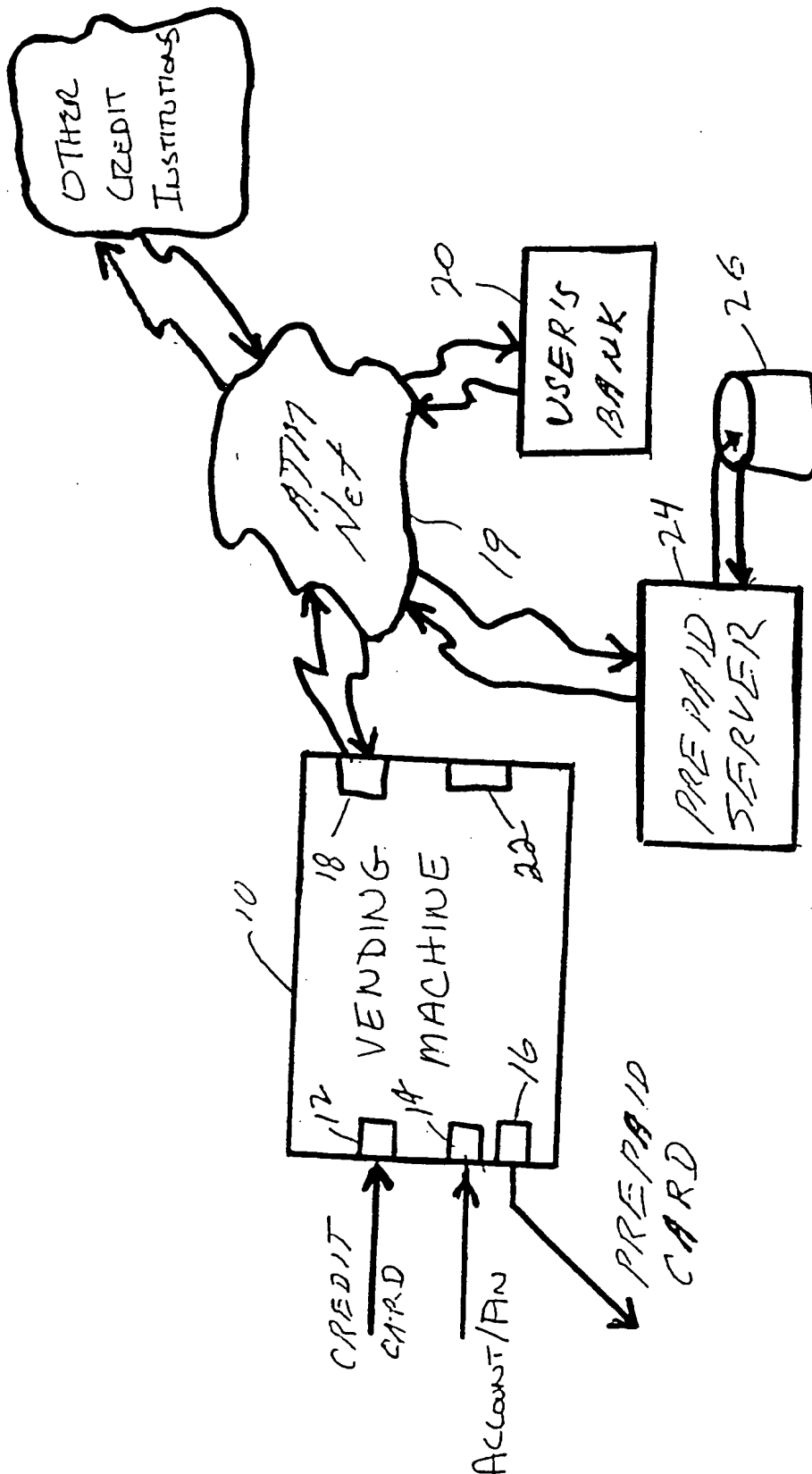


FIG. 2

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US98/17429

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06F 17/00, 17/60, 5/00, 7/08, 5/00, 19/06

US CL : 235/ 375, 380, 379, 381, 382, 492; 379/91.01, 114, 144

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 235/ 375, 380, 379, 381, 382, 492; 379/91.01, 114, 144

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
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NONE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	U.S. 5,409,092 A (Itako et al.) 25 April 1995 (25/04/95), the entire reference	1-12
Y	U.S. 5,272,320 A (Hakamada) 21 December 1993 (21/12/93), the entire reference	1-12
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☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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